

IV. *A Description of a Species of Sartocele of a most astonishing Size in a Black Man in the Island of Senegal; with some Account of its being an endemic Disease in the Country of Galam.* By J. P. Schotte, M. D.; communicated by Sir Joseph Banks, Bart. P. R. S.

Read December 19, 1782.

TH ERE are certain diseases which are peculiar to certain countries only, and are thence called endemic ones of such particular countries where they occur. The more progress we make in the discoveries of countries, the more we are convinced of this fact, and the greater is the number of those diseases that become known. Their formation may depend on climate, food, water, hereditary disposition, and other causes. Many endemic diseases of the most distant countries have been described by ingenious travellers; but as the Europeans have not yet penetrated into the interior parts of many countries, it is probable, that there may be several more of this kind, entirely unknown to us. A disease of this class, which I have seen at Senegal, and which, as far as I know, has not yet been mentioned by any author, convinces me of what I have advanced; and as it is a remarkable one, I think a short description of it may not be unacceptable to the curious in physic.

Mr. BISHOPP, surgeon in chief of the province of Senegambia (who now resides in London) telling me one day, that he was going to see a poor black man of the Bambara nation, afflicted with a

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most extraordinary and dreadful disease in his testicles, I accompanied him, being glad of the opportunity of seeing it. We entered the hut, and saw the man lying on a negro bed, elevated about a foot from the ground. He said to Mr. BISHOPP, that there was again an ulcer on his scrotum, which had made him take the liberty to request his attendance. I looked at the scrotum, and found it of an astonishing size; but the place where he lay being dark, the hut having no windows, and those people having no candles, he was asked, if he could not walk towards the door, that we might see better. He answered, that he would try; but this was attended with much difficulty. A long cotton sheet was first spread on the ground before the bed, which being done, he took, with both his hands, the enormous scrotum, moved it gradually on the border of the bed, let it slide down gently, and put it into the middle of the sheet: after this he took the two ends of the sheet, passed them up the fore-part of his body, over his shoulders, and had them tied behind his neck. This being done he got up, placing the right-hand upon his right-thigh, and holding the sheet with the left-hand, and proceeded in this manner, with his knees a little bent, slowly towards the door, partly sliding the scrotum on the ground, and partly supporting it with his neck by means of the sheet. I was astonished at its enormous size, when I saw it in the light, and yet I neglected to measure it, thinking at the time, as is often the case, that I should have opportunities enough to do it; but the sudden invasion of the island by the French prevented me afterwards from performing it. However, according to my guess, and without any exaggeration, the whole mass might be about two feet and a half long from the os pubis to its lower extremity, and about eighteen inches in diameter across from thigh to thigh.

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Its weight I will only state at fifty pounds, as it was estimated by Mr. BISHOPP, though I believe it to have been more, and indeed from its dimensions, and from its being a solid mass, it must certainly have exceeded that weight. It was of an oblong form, and resembled in some measure the shape of the scrotum of a bull. It felt very hard to the touch, and the skin of it was so tight, that it could not be pinched by the fingers. The penis was quite hid in the bulk, as generally happens when the scrotum is much extended, and may be easily comprehended by those who have seen large ruptures. The skin of the perineum and of the abdomen was drawn downwards, the navel being nearer to the os pubis than it is in the natural state. There was a large aperture formed by the skin about a foot downwards from the os pubis, rather inclining towards the right-side, out of which the urine came, which, however, did not run in a stream, but came irregularly from all the interior sides of the aperture. When he made water, he inclined the mass, which rested on the ground, a little forwards, and he held a wooden bowl close underneath the aperture, into which the urine was immediately received, that it might not run along the mass, and occasion excoriation.

There was an ulcer on the anterior part of the scrotum, rather towards the left-side, of about two inches long, and one inch broad and deep. He said, that it had begun with a pustule or boil, which being broke had gradually increased to this extent. The pus which came from it was white, thick, and of a good kind. The bottom of it was red, and, when touched with the probe, gave him very acute pain. The edges of it were not very callous, and in appearance it did not much differ from an ulcer of a good kind in any other fleshy part of the body. No other remedies were applied to it but those generally used

used in common ulcers. It was filled up from the bottom with lint; a pledget of basilicum was put over it, and the edges were now and then touched with blue vitriol. By those means granulations began to shoot from all sides, the sore filled up gradually, and a cicatrix was formed. He had had smaller ulcers of this kind in other parts of the scrotum before this time, which, Mr. BISHOPP told me, he had treated with the same success.

The man was rather thin than fat, and might be about fifty years old. He himself, like most blacks, did not know his age; and if he had pretended to know it, I might, perhaps, not have believed him: for as old age is much respected among those people, they are very apt, when they are once past fifty, and have grey hair, to call themselves older than they really are, in order to command respect. His abdomen seemed rather empty, and appeared drawn in towards the spine; yet I do not think, that any of the intestines had descended into the scrotum, or if any had passed down, the annuli of the abdomen must have been so dilated as not to occasion the least obstruction in them; for he never had, to my knowledge, any of those complaints or symptoms which attend ruptures. Besides this, it is to be observed, that ruptures are not very common among the blacks about Senegal; indeed I can say, that I never saw one of them.

Having thus far given an account of what I saw myself of this remarkable disease, I shall now relate what I have been credibly informed of by other people concerning its beginning and progress. The man had been purchased up the river as a slave, when he was about the age of puberty, and brought down to Senegal, where he was kept as a house-servant by an opulent inhabitant. He was for some years healthy and well; but afterwards

afterwards his testicles began to swell insensibly, without inflammation, pain, or any other inconvenience. They increased gradually, though slowly, and became some years after of such a bulk, that he was neither able to walk nor perform his usual work. That he might, however, not be quite idle, as he was otherwise a stout and able fellow, he used to cut bars of iron into pieces of a foot long, which bear a certain price at Senegal, and go among the blacks like current money. This he could do sitting with a chisel and hammer, and a small anvil placed before him on the ground, his legs bent under him, and the big scrotum resting on the ground. Mr. BISHOPP had seen him perform this work for many years; at last, however, the scrotum increased to such a degree, that the great bulk prevented him from doing it any longer. From the time that the disorder had first begun to shew itself to the time I saw him, five and twenty years had elapsed; he was alive when I left the island in February, 1779, and may be so now.

This man was the one I ever saw afflicted with this disease at Senegal; but I am credibly informed, that it is endemic in a country which goes, among the blacks at Senegal, by the general name of Galam, and of which this man was a native. This country lies east of Senegal, at the distance of about nine hundred English miles, and its inhabitants are called Bambaras. I have been told by those inhabitants of Senegal, who go annually in the rainy season in a fleet of small craft to Galam for trade, that this disease is particularly common among the chiefs or noblemen of that country, who are styled in their own country language Batcherees; and that they have large wooden bowls, fixed on the fore-part of the saddle, into which they place the big scrotum when they take a ride on horse-back. Though this latter circumstance seem a little romantic, yet as

it has been related to me, not by one but by many, separately and at different times, I give it credit, and I have not the least hesitation to believe, that the disease is common there. Many of the inhabitants of Senegal have applied to me previously to their setting off for that country, and asked me, if I could not give them medicines which would cure that disorder, with a promise, that if they proved successful, I might be sure of a very ample reward of gold; but the improbability of succeeding in the reduction of such enormous masses to their pristine state prevented me from giving them any.

When I was at Fort James in the river Gambia, for a short time in the year 1776, I was told by some Marahbuts, or Mahometan priests, of the Mandinga nation, that this disease was now and then to be met with among the chiefs of their nation, and that they knew no cure for it*. I have no reason to discredit

* It is to be observed, that those Marahbuts apply themselves, besides religious matters, to the study of physic; but only as far as it rests on experience alone, without entering into the investigation of the causes of diseases. They are also often called upon by the kings and chiefs to give their opinion in points of law and equity. Most of them are well versed in the Arabic language of the Mauritanic dialect, and they are the only people of letters among the blacks; for none of the black nations about Senegal and Gambia have even an alphabet, much less any writings in their own languages. I believe the selling of charms constitutes the greatest part of their revenue: and the more reputation one of them has acquired, the dearer he sells them. Those charms usually consist in nothing but a few lines taken from the Koran, written on a little piece of paper, which, after being sewed up very nicely in leather or cloth, the buyers wear about their bodies. They are to defend and protect them in dangers; but, as one charm has only the power of protecting them against one single kind of danger, they are obliged to have a great many of them, in order to have a protection against every probable danger that may befall them; hence many of the blacks are covered with them in different parts of the body; and they have such a strong faith in them,

discredit their assertion, and what makes it more probable to me is, that the Mandinga and Bambara nations seem to be nearly related to one another in outward appearance, customs,

them, that when they are surprized in the night-time by an enemy, they will not take up arms for their own defence, though in the most imminent danger, till they have dressed themselves with those charms, and then they will meet him undauntedly. This faith in charms, however, is a corruption of the Mahometan religion, and the Moors, who live on the north-side of the river Senegal, observing it in its purity, make no use of them. The Marahbuts of the black nations, as well as those of the Moors, are also the principal merchants and the most opulent people among them, and the gum trade on the river Senegal is chiefly carried on by those of the Moors. The Marahbuts are also the only people who can travel with any safety into distant kingdoms, which no layman can well do without running the risk of being made a slave. Their religious profession protects them every where; they are even respected among those nations who are not Mahometans; and they are considered by them as godly and virtuous people, and men of wisdom. They make proselytes in the Mahometan religion every where; and I am inclined to believe, that they will extend and spread it in time all over Africa. I have seen some Marahbuts of the Pool or Fool nation at Senegal who were pretty well versed in the old testament, and knew partly the history of the institutor of the new one. One day as I was talking with them on the writings of Moses, happening not rightly to recollect the lineage from Adam to Abraham, one of them flattened the sand, made it even, and drew with his fingers on it the genealogy from Adam down to Jacob, which, to the best of my recollection, corresponded with that given by Moses. While he was doing this, I looked at him with pleasure and satisfaction, because it resembled so much the rude simplicity of the early ages. The Marahbuts reason in general exceedingly well on such subjects as they are acquainted with, but they have a way, like the eastern nations, of adducing parables or similes in their arguments which do not always bear the strictest resemblance to the case in hand, though they are very persuasive with such people as are not capable of investigating the points in which they differ from the case in question. I was always much delighted with their conversation, and was often sorry that I was not master of their different languages, and able to converse with them without an interpreter. The Marahbuts of the Moors are more learned and ingenious in every respect than those of the black nations; but I had not much opportunity of conversing with them, as they were not allowed to reside on the island.

and language, though not entirely in religious matters ; for many of the Mandingas are Mahometans, which the Bambaras are not. Their languages resemble one another so nearly that a Bambara from Galam, and a Mandinga from the kingdom of Barrah, which extends from the sea-coast along the north-side of part of the river Gambia, can partly understand one another. Both nations have also a custom of marking their children in various manners by incisions in the skin, and that of filing their fore teeth (*incisores*), till they become quite pointed; which I imagine they consider as being handsome.

As the disease, according to the information I received, begins with a gradual swelling of the testicles without any pain or inflammation, I am inclined to consider it as a farcocele. HEISTER, in his *Surgical Institutions*, says, that the disease begins and increases mostly in the same manner, when it affects the testicles themselves ; but that he never saw any of them much bigger than a man's fist. This difference in the size does, in my opinion not, alter the disease ; for we know, that the Bronchocele is hardly known in some countries, that it is of a moderate size in some others, and that in others again it has been seen to increase to such an enormous bulk as to hang down over the breast and belly ; yet this difference of size does not alter the nature of the disease, and it still retains the same name.

It is difficult to point out the causes of such a farcocele, as consists in the spontaneous tumefaction of the testicles themselves ; neither do I find any satisfactory ones assigned by the author I have just now quoted ; and as I have not been in Galam, I can hardly say any thing probable concerning those of the disease I have described, I shall, however, suggest the following.

As polygamy is lawful and customary among the Bambaras as well as among all the other nations about the river Senegal and Gambia, and as the riches and consequence of a man are estimated by the number of wives that he keeps, the chiefs of the people have always a great number of them. I have been told, that the Batcherees of Galam have their viands most immoderately seasoned with Cayenne pepper; and I know myself, that the opulent people of the Mandinga nation make the same abuse of it. This may, perhaps, be done with a view to its operating as a provocative; for it has a peculiar effect on the seminal vessels, and will produce erections, attended with a dull pain and turgescency in the testicles: I was therefore inclined to think, that the immoderate use of this pepper might partly be the cause of this disease; but then again this could not be the case in the man I saw at Senegal, where none, or at least very little of it, is used.

The most probable cause of it seems to be an hereditary disposition; for, as it only begins to shew itself about the age of twenty-five or thirty, a man may be father of a great many children before it takes place, and as it seems to be confined to families of the principal people of the Bambara nation, it may be, that the man I saw afflicted with it at Senegal was descended from such a family, and made a slave in his younger years by some fatal accident or other, as is often the case in those countries.

The French, who are the present possessors of the river Senegal, may perhaps be able to give shortly a more perfect account of this remarkable endemial disease. In the mean time, if this should be deemed worthy the notice of the Royal Society, it will afford the greatest satisfaction to him, who has the honour to be, &c.